

**Provider:**

Ivy Tech Community College

**Course Code:**

2527

**Content Area:**

Mathematics

**Course Delivery:**

Online

**Enrollment Type:**

Non Continuous

**Enrollment Deadline:**

August 9, 2024

**Course Description:**

Prerequisite Courses: MATH 136 College Algebra and MATH 137 Trigonometry with Analytic Geometry.

Reviews the concepts of exponential, logarithmic and inverse functions. Studies in depth the fundamental concepts and operations of calculus including limits, continuity, differentiation including implicit and logarithmic differentiation. Applies differential calculus to solve problems in the natural and social sciences, to solve estimation problems and to solve optimization problems. Applies differential calculus to sketch curves and to identify local and global extrema, inflection points, increasing/decreasing behavior, concavity, behavior at infinity, horizontal and vertical tangents and asymptotes, and slant asymptotes. Applies the concept of Riemann sums and antiderivatives to find Riemann integrals. Applies the fundamental theorem of calculus to solve initial value problems, and to find areas and volumes and the average values of a function.

**Credit:**

4

**Credit Type:**

Dual Enrollment

**NCAA Approved:**

No

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**Cost:**

\$785.52 (Prices are subject to change based on the approved Ivy Tech course fee costs.)